



# Enquiring Minds Year 2 research report

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# Summary

Enquiring Minds began in summer 2005. Two Futurelab researchers worked alongside a total of ten teachers from two secondary schools in the Bristol region. From September 2005-July 2006 the Enquiring Minds vision was refined into a range of practical classroom strategies through ten one-day workshops and planning sessions, and through experimentation in classrooms. From September 2006-July 2007 the teachers ran Enquiring Minds as discretely timetabled lessons (ranging from one-and-a-half to three hours per fortnight). Two groups of children from each school, totalling approximately 120 students across both schools, participated. In one school students were from Year 7 (aged 11-12 years) and in the other from Year 8 (aged 12-13 years).

Enquiring Minds is grounded in theory and research in education. The main directions for the analysis emerge from theories about curriculum change, children's cultures, classroom organisation, the generation of knowledge in learning communities where teacher-student relationships are changed, the role of assessment, and from ideas about teachers' professional identities and children's identities as learners.

All of the teachers have modified their usual teaching practices in order to allow students to define the content areas for exploration. They report that they have been doing much less teaching from the front of the classroom than normal. Students told us that they appreciated this, claiming that they valued the space to make choices about their learning that they were provided with.

The project has indicated that it is possible for teachers to make room for students to pursue their own interests, ideas, questions and concerns through enquiry-based learning. These ideas included some drawn from popular culture (eg fashion, Japanese animation) as well as others with more relevance to school subjects (eg medical breakthroughs, climate change).

Teachers found that they needed to provide flexibility and structure for students to differing extents. Most of them provided logsheets and research booklets to help structure each student's work, maintained deadlines and checked students' progression regularly in order to ensure that everyone was able to proceed effectively and that they were keeping a record of all work completed. The four-stage Enquiring Minds cycle was used as a device for planning and organising students' projects.

Students welcomed the fact that there was less 'grading' of their work in Enquiring Minds; some claimed this made the lessons less pressured. They also reported that teachers had spoken to them more during lessons about possible improvements to their work, which helped them to understand their progress and their possible next steps.

Teachers reported that aspects of their professional identities had been changed by participation in the project. Some reported that they had reflected on their usual teaching routines, while others stated that the process of change had involved some stress, mistakes and risk-taking. Some argued that it was important to take those risks and that, with the support of other staff, this process allowed them to come up with tried and tested methods for future work of this nature.

# About this report

This report provides an analysis of activities that have taken place in two schools during the Enquiring Minds project to date.

We have written this report to be as accessible as possible. We hope that it will be of interest to teachers and school leaders, local authorities and policy makers, as well as to researchers of school change, teaching and learning, curriculum and educational policy.

It is organised into three parts. Part 1 describes the background to the project, its development and implementation as a classroom initiative, and summarises the research methodology. Part 2 provides our analysis to date. This analysis is arranged according to overarching themes and questions, divided again into subsections that focus on teachers and students. The third part offers a short discussion and some conclusions.

The report focuses on the achievements and the challenges which have emerged from the project to date. Throughout, we quote extensively from interviews with students and teachers who have participated in the project. We argue that it is through the voices of those most closely involved in the innovation that we can learn best about the experience of change in school.

We have written it as a companion to the Enquiring Minds guide, which describes the practical classroom and organisational aspects of the project, and which provides advice for other schools interested in developing similar approaches to teaching and learning. You can read the guide online or download it, free of charge, from [www.enquiringminds.org.uk](http://www.enquiringminds.org.uk).

# Part one:

## 1. About Enquiring Minds

What would schools look like if young people had more of a say in and responsibility for determining what and how they are taught and learn? What changes would need to be made in schools if teaching and learning was based on, and expanded, young people's existing knowledge and experiences, instead of being closely tied to the National Curriculum programmes of study? In this report we discuss the findings emerging from the three-year Enquiring Minds project, which is exploring how these ideas can be turned into school practice. This report presents some of the research that has been carried out during the pilot year of the project, from September 2006 to July 2007.

The project operates from the belief that meaningful learning experiences must build on young people's own personal, social and cultural experiences outside of school, including their values, beliefs and existing knowledge, rather than solely on a static and content-

heavy curriculum. Instead of viewing young people as recipients of the curriculum in school, in Enquiring Minds they are regarded as having the capacity to be active in shaping and agreeing a dynamic curriculum alongside their teachers. The theoretical and contextual background to the project can be found in our 'context and rationale' report (published in January 2006) on the Enquiring Minds website.

The project has two main strands of activity. The first involves close work between researchers from Futurelab and ten teachers from two secondary schools. This has resulted in the creation of space and time in both schools' timetables to develop and trial classroom practices that young people play a part in shaping. The second strand is an extensive programme of research to study the process of implementing and developing Enquiring Minds in these two schools.

## Part one:

### 2. Development process of the project

Two researchers from Futurelab and ten teachers, drawn from two secondary schools in the Bristol region, have been involved in developing the Enquiring Minds project from an initial vision into a classroom reality. The project commenced in summer 2005, and during the first year the researchers and teachers worked together during ten whole-day workshops to turn the vision into a set of classroom activities and practical plans. Many of these workshops involved discussions about the challenges of teaching in schools and the way a curriculum experienced as 'content-heavy' and driven by the demands of assessment places limits on student choice and involvement. At the end of this process teachers reported that they valued the time allowed to engage with what they saw as important educational issues.

One of the researchers also spent time after school with a small group of young people from each of the schools, exploring their experiences of previous educational interventions and attempting to gain an insight into the

distinctive cultures of students both inside and outside of school.

By the end of spring 2006, both schools agreed to trial Enquiring Minds as a 'subject' in the academic year 2006-07. This meant that Enquiring Minds occupied a space on the school timetable. Teachers chose to team-teach in pairs so that they could support each other; in each pair there was one highly experienced teacher alongside one less experienced teacher, although nobody had less than three years' prior teaching experience.

At Ashton Park School, 64 Year 8 students were involved, split into two classes (and later divided again into four groups of 16 students each). At Gordano School, there were 26 students in one Enquiring Minds group and 28 in the other, totalling 54 students, all from Year 7.

The pilot year of the study began in September 2006 and ran through to July 2007. A timeline of activities is shown below.

Term	Activities
Term 1: Sep-Oct 06	The first term of Enquiring Minds involved eliciting students' ideas, interests and concerns. Activities involved discussion work, taking photographs around the local area, collecting objects, and coming up with interesting questions. The focus was on students making things about their out-of-school lives visible, and on teachers working with them to identify aspects of their experiences that could make up the raw material for subsequent enquiry. There was also a focus in most classes on group work skills.
Term 2: Nov-Dec 06	All groups carried out whole-class enquiry projects based on ideas that teachers had identified as having potential from earlier activities, the focus of which was on demonstrating how the Enquiring Minds cycle could be used as a structure for carrying out a lengthy project from first ideas through to planning, researching, and to the presentation of outcomes. Students were made explicitly aware of the skills that they were supposed to learn as effective group working members and researchers.
Term 3: Jan-Feb 07	At one school, outstanding work from Term 2 continued. At the other, some teachers opted to allow students to come up with another whole-class idea and to practise using the model of the 'enquiry cycle'. Some teachers decided to allow students to come up with their own individual or paired ideas, and experimented with methods of managing and organising activities to support them.
Term 4: Feb-Mar 07	Activities from Term 3 continued, with the aim being to find ways for students to communicate and present the outcomes of their work effectively. For example, some students produced slideshow presentations, others made short video films.
Term 5: Apr-May 07	All students were involved in their own enquiry projects, mostly working alone, some in pairs. Teachers were mainly acting in a supportive capacity, assisting students in refining their ideas and supplying resources. Most teachers were using structuring devices such as logsheets and research booklets.
Term 6: Jun-Jul 07	During this term, most groups were continuing their own enquiry projects, including the collation of findings into presentation documents or into written texts. Students in one group made websites using the information they had collected. At one of the schools, some compulsory pastoral work took place.

# Part one:

## 3. Research study

This section describes the way we researched the Enquiring Minds activities in schools in the period September 2006–July 2007. We collected the following data:

- Questionnaires with all participating students at the start and end of the school year, which were matched against questionnaire data collected from non-participating students from the same year group.
- Over 200 hours of lesson observations, recorded as field notes, of all participating students and teachers.
- Interviews with all participating teachers and the headteachers from both schools.
- Interviews conducted in December 2006 with 11 students, and July 2007 with 32 students.

In this report, we use this data to address the following questions:

- Whether and how students and teachers can negotiate their own 'curriculum'?
- What are the challenges for schools in engaging with young people's cultures and experiences outside school?
- How is the teaching and learning experience in the classroom viewed by young people?
- How is knowledge constructed in classrooms and what are the relationships between teachers and students?
- How do teachers and young people perceive the role of assessment in supporting learning?
- What sorts of identities do teachers and young people develop in schools?

Part Two of this report addresses each of these questions in turn, and presents data to describe how teachers and young people have experienced Enquiring Minds.

Sections 4 to 9 then look at each of the six questions outlined above, using interview data from teachers and students alongside our own reflections from our field observations to make sense of the impact of Enquiring Minds as a practical application. Each of these sections starts by situating the questions in current debates emerging from other research and educational theory, before discussing the specific application of the project. In section 10, we briefly present some statistical data from the project to indicate students' overall sense of engagement, motivation and attitudes towards the Enquiring Minds intervention.

In the final part of the report, we discuss how the lessons we have learned from the project to date can inform contemporary debates about schooling. In the conclusion we describe the concrete outcomes of the project to date and comment on what we see as the implications for understanding questions of educational change.



## Part two:

# 4. Negotiating a curriculum

During the school year 2006-2007, teachers participating in the Enquiring Minds project developed a curriculum that allowed students to generate questions and areas of interest to pursue. The idea was that students would have control over the content of their learning, and power to decide how to go about studying this content. Enquiring Minds can be seen as an experiment in curriculum development.

The process of curriculum change has become of increasing interest in recent decades. In the context of what is widely regarded as the centralisation of the school curriculum, many commentators have argued that the effect has been to sideline important questions about what content and knowledge is being taught to children in favour of an emphasis on teaching standards and measurable assessment targets.

One influential approach to the curriculum is to see it as a body of knowledge and a set of skills to be transmitted or 'delivered' from teachers to students. In this view, teaching is essentially a technical task that relies on the skills and qualities of effective teachers. Critics of this approach to the curriculum argue that it assumes that learners are passive recipients of the educational transaction, accepts knowledge as a fixed product valuable to all, and evades debates about how knowledge is produced<sup>1</sup>.

Enquiring Minds is influenced by arguments that suggest that knowledge, and thus the curriculum, can be seen as the construction of powerful groups in society. Accordingly, the idea that education involves the 'neutral' transmission of 'innocent' knowledge is challenged by the understanding that curriculum serves to reproduce and naturalise existing social arrangements<sup>2</sup>. More recently, it has become common to argue that the content of the

curriculum is less important than the skills students need to 'learn how to learn' and develop the 'learning dispositions' required to face the challenges of life in the 21st century<sup>3</sup>.

Enquiring Minds starts from the assumption that the question of the content of the curriculum is of fundamental importance in affecting how students experience learning<sup>4</sup>. The implication of this is that the Enquiring Minds 'curriculum' is to be negotiated and agreed by teachers and students working together rather than imposed from a centrally prescribed document. It is an approach that recognises the 'incompleteness' of standardised curriculum documents and that opens up the classroom to students' own social worlds, questions and ideas rather than delivering to them a fixed body of content<sup>5</sup>. It is intended both to support children to become more aware of themselves as learners and to recognise knowledge as something (not just a curriculum) that is constructed, subject to change, and open to critique. In the rest of this section, we discuss how teachers and students have responded to the challenge of 'curriculum making' in Enquiring Minds.

### Teachers

In the early stages of the project, teachers repeated that the subject-based National Curriculum they teach in schools fails to meet the needs of some of the students in their care. This was expressed through the idea that it did not encourage students to see themselves as independent learners who take responsibility for their own learning. The reasons for this differ in both schools. In one there is an existing problem with students' motivation and aspiration to succeed.

<sup>1</sup> See: McKernan, J (2008) *Curriculum and Imagination: Process theory, pedagogy and action research* (Routledge); Grundy, S (1987) *Curriculum: Product or praxis* (The Falmer Press).

<sup>2</sup> See Apple, M (1979) *Ideology and Curriculum* (Routledge).

<sup>3</sup> For a critical review of such accounts, see Scott, D (2008) *Critical Essays on Major Curriculum Theorists* (Routledge).

<sup>4</sup> For a critique of such approaches, see Quicke, J (1999) *A Curriculum for Life: Schools for a Democratic Learning Society* (Open University Press).

<sup>5</sup> It must be noted that this not an uncontested idea, and that some critics argue the purpose of schooling to be to take people beyond their everyday knowledge, not to amplify their experience. See Young, M (2006) 'Education, knowledge and the role of the state' in A Moore (ed) (2006). *Schooling, Society and Curriculum* (Routledge).

## Part two:

### 4. Negotiating a curriculum

**"Every member of staff in this school knows that our biggest challenge is getting kids to take responsibility for their work. And we have a situation now where you have perfectly able pupils who don't aspire, aren't interested, aren't motivated by what's put in front of them... Anything we can do to actually promote interest and promote enquiry and skills in everything that this project is about, as far as I see it, is a good thing."**

Assistant headteacher

In the other school, teachers sense that students are over-dependent on staff as a consequence of examination performance pressure.

**"It's one of the things that we as teachers most complain about, how there's a lack in independence and resilience on the part of the kids. When you're working and teaching in a system where the school's judged by exam results and then the teachers are judged by their contribution to the exam results, it's hardly surprising then that the teachers have tried to do more and more to push information into their heads."**

Advanced skills teacher

**"We're very aware in the school that we've bred a crop of kids who can't work independently. And in fact not just can't work independently but we're sort of engendering dependency."**

Advanced skills teacher

It was these concerns that led the schools to be involved in Enquiring Minds. During the school year 2006-2007, the teachers sought to offer students greater responsibility for defining the focus of Enquiring Minds lessons.

For most of the teachers, the challenge in the early months was to shift their role as teachers from transmission of essential content and information to an emphasis on the processes of learning. In practice, this meant that teachers sought to ensure that students were aware of what sorts of skills as independent learners they should be developing. For example, we recorded many instances of students being supported to formulate

questions, to gather, manage and organise information in different ways, to be able to carry out specific research activities such as writing questionnaires, and to use ICT in appropriate ways.

By April 2007, teachers considered that students were adequately equipped with skills and strategies to begin their own self-initiated enquiry projects, although they recognised that all students would continue to need significant support throughout this process.

**"It's a break from the heading towards an assessed test. And it's a movement towards the processes of learning rather than the learning. Emphasis being entirely on being adaptable and on being spontaneous and interactive rather than on, step back, 'here's the information, learn it. Your job - learn. My job - tell you what information to learn.'"**

Advanced skills teacher

Some of the teachers reported that that the consequences of this approach extended further. This teacher, for instance, thought that Enquiring Minds had begun to encourage students to be more critical of the knowledge that teachers bring into the classroom.

**"So in my English classroom I might say something and they'll scribble it down. Whereas in an Enquiring Minds classroom, I might say something and they will challenge it, and they will question it or they'll add their own piece to that."**

Advanced skills teacher

The achievement of the teachers during the pilot year of the Enquiring Minds project has been to 'unfreeze' some of their existing strategies of curriculum control and begin the process of granting responsibility to students to define areas of interest that they want to investigate. One strategy for doing this is to introduce democratic procedures so that as a whole class, students can agree on a content area for further exploration. Later in the school year, all students carried out their own individual or paired enquiry, with teachers operating supportively and critically to help them expand on their initial understandings.

## Part two:

### 4. Negotiating a curriculum

#### Students

It is clear from interview data collected in July 2007 that students are very keen on the idea of 'choice' that they were offered during Enquiring Minds. They frequently commented that this choice was not something they were given in the normal course of school, and many stated that they would like to continue doing Enquiring Minds for this reason alone. They liked the fact that it was less routine than other subjects, as one girl told us, "because it gets boring if you just keep going to the same lessons and learn the same things". Another boy claimed, "It's like a project about answering questions and really deep research about what you want to find out," and added, "It's the only lesson that we get to choose what we want to do.". Others claimed that having such choice seemed to have contributed to a good classroom atmosphere in which students were productive without being coerced or policed by teachers all of the time.

**"It's a lot more chilled out and like you get to choose quite a lot of things, but they do tell you what to do as well. So it's kind of good because you do get more of a choice than you would in just the classes."**

Girl, Year 8

It was also clear that not all students fully understood the stated purpose of Enquiring Minds explained at the start of the year. Some were doubtful as to whether this was a legitimate activity. For example, one girl, after it had been explained to her that Enquiring Minds was about students having more choice about their learning, asserted that "teachers are supposed to help you, not let you do what you want". In our observations and discussions with students, it was clear that some had a quite fixed view of the role of the school, and argued that teachers have responsibility for helping students to achieve things, rather than students taking responsibility for defining what they want to do. In an activity in which students were asked to describe the role of the teacher, some claimed that it was about "telling you how to do things" or "teaching you skills". This is a significant issue, since it cannot be assumed that students necessarily want to accept the offer of 'agency' or 'control' in lessons.

Despite this, our end of year interviews suggested that most students were comfortable with the idea that they could have some control over the direction of their lessons, as the following comments illustrate.

**"It's kind of like where you've got a free mind and you can explore different things that you want to learn. And you've got your right to your own opinion, and nothing you say can be said 'Oh that's wrong' and stuff... It's good to have a bit of that mixed in with everything else."**

Girl, Year 8

**"I do like this lesson. 'Cause you're doing all different sorts of like lessons. Like in some bits you might do a bit of science, some bits maybe a bit of maths."**

Boy, Year 8

To conclude this section, we suggest that, during the course of the year, teachers and students found ways to negotiate the content of Enquiring Minds sessions, to the extent that students successfully defined and worked on their own enquiries, with the teachers' role being to support, guide and offer constructive criticism rather than disseminate 'official' knowledge. This does not, however, tell the whole story about the kinds of knowledge that might enter the classroom when it is open to students' cultures and experiences. We discuss this in the next section.

## Part two:

# 5. Engaging students' cultures

The previous section discussed the ways in which teachers and students went about 'negotiating' the Enquiring Minds 'curriculum'. At the heart of this was the idea that schools and teachers should recognise, value and build upon the cultures and experiences of their students' out-of-school lives. In this chapter we look at the ways in which teachers and students have engaged with their out-of-school cultures, recognising and appreciating that even if the term 'culture' is heavily freighted it allows us to explore the broader contexts within which young people develop their interests, concerns and knowledge.

From the start of the project, Enquiring Minds sought to make students' lives the 'raw materials' for curriculum-making and to find ways of enabling children's cultures, interests and experiences to form 'resources' for enquiry. This is in line with the literature referred to earlier which argues that the 'official' curriculum taught in schools tends to exclude the popular cultural experiences of students. It suggests that one way to encourage involvement and engagement by young people is to work with students' cultural experiences. The basis for this argument is explained in the following paragraphs.

In the 1970s and 80s there was a growing awareness in academic circles that the category 'young people' is diverse and heterogeneous. Within cultural studies there was a focus on the experience of working-class children, which was reflected in moves to make this experience the basis of teaching in schools<sup>6</sup>. Later studies focused on other 'axes' of identity – including gender, ethnicity, socio-economic conditions and geographical location – that impinge on young people's lives<sup>7</sup>.

In addition to this, recent work in cultural and media studies has focused on how young people's lives are wrapped up in complex ways with 'media culture' (television, music, computers, film and so on)<sup>8</sup>. The educational corollary of this is that since young people experience media on a daily basis it has become an

important source of their access to knowledge, and that schools and teachers need to catch up with the fast pace of change in children's lives: to develop pedagogies and modes of presentation that appeal to young people's experiences of media<sup>9</sup>.

There are important arguments about whether media culture has detrimental effects on children's consciousness or whether it is an important source through which they actively construct their identities. We do not seek to resolve these. However, we would suggest that any attempt to develop ways of teaching and learning that draw upon and recognise children's experience will have to engage with the issue of how to work with popular knowledge. Enquiring Minds is no exception, since the stated aim of engaging with children's culture entailed inviting it in, making it visible, and then using it as a resource for the development of activities that can help to expand students' range of understanding and critical knowledge. This section reports some of what happened in the classroom.

### Teachers

In preparing to develop the Enquiring Minds 'curriculum', teachers and researchers discussed how they might engage with young people's cultures and experiences within the school environment. Teachers agreed that it was important to find ways to elicit from children a range of views, beliefs, values and experiences, and to find productive ways of working with students to expand on these in unanticipated ways, and recognised that this could be challenging.

**"I know that most of the school curriculum is what we want them to learn, which is fine but it maybe doesn't tap into what they want to learn or tap into their own interests or things that they value as important."**

Assistant headteacher

<sup>6</sup> See: Willis, P (1976) *Learning to Labour: How Working Class Kids Get Working Class Jobs* (Saxon House); Aggleton, P (1989) *Rebels Without a Cause?* (Falmer).

<sup>7</sup> A useful recent account is provided by Weller, S (2007) *Teenagers' Citizenship: Experiences and Education* (Routledge).

<sup>8</sup> See Osgerby, B (2004). *Youth Media* (Routledge).

<sup>9</sup> See: Kenway, J and Bullen, E (2001) *Consuming Children: Education-Entertainment-Advertising* (Open University Press); Buckingham, D (2003) *Media Education* (Polity); Lankshear, C and Knobel, M (2006) *New Literacies: Everyday Practices and Classroom Learning*, 2nd ed (Open University Press).

## Part two:

### 5. Engaging students' cultures

**"You [students] bring to the classroom a load of stuff teachers don't know... and some of it is very valuable... You're bringing an awful lot of knowledge into the classroom."**

Advanced skills teacher

**"I mean one of the biggest things... and I don't know how you would go about doing this... is tapping into the belief that kids have this incredible life outside of school, and that they are already equipped with a huge range of tools and skills that we never tap into."**

Assistant headteacher

One of the teachers opened the first lesson of Enquiring Minds with the statement to children that "I haven't got a big syllabus that tells me what I'm going to teach; your thoughts and opinions are going to be the syllabus for these lessons". He later continued, "What we're trying to demonstrate is you already come to school with lots of valuable information and what happens when you come into lessons is that teachers ignore this".

Practically, the teacher prepared a range of activities designed to elicit this new sort of syllabus from the students. They annotated maps and took photographs of their local areas that had personal resonance for them, responded to a national survey of young people's opinions, played a round of 'Beat the Teacher' that demonstrated some of their knowledge, and collected together a range of artefacts that represented important aspects of their private lives.

It quickly became apparent, however, that for some of the participating students it was unclear why teachers had suddenly taken an interest in their lives outside school; some, in fact, were openly resistant and hostile to the idea.

**"There are skills they have and areas of their life where they do things which are far more taxing than what we ever put them through in school... but they are parts of their life. And the surprising thing was they didn't want to share that, and they wanted to keep it to themselves and they wanted to keep it, you know, separate from what goes on in school, and it's quite interesting."**

Assistant headteacher

**"I think we were all amazed by that... a reticence to actually share their own family backgrounds, their own lives. And a resistance on the part of a lot of pupils. You know, 'This is my life, I really don't want to share that with you.'"**

Assistant headteacher

What emerged from the first full term of work on Enquiring Minds was that some students were unable to understand why teachers had an interest in their out-of-school lives and, at the same time, some teachers were unable to see how students' experiences could form the spine for more negotiated learning. Perhaps, one teacher suggested in an interview at Christmas 2006, students "prefer to be introduced to things outside their own sphere of reference".

After the first term, however, teachers changed tack somewhat and began inviting students to come up with ideas and interests that they were interested in learning more about. Although this was a tactic which clearly still appealed to children's interests outside school, the invitation seemed less personally intrusive. As a result, all students were able to come up with ideas for further exploration.

In one class, students decided as a whole group that they wanted to explore ideas to do with sex. This was agreed amongst themselves through a series of votes on a range of ideas that they had all put forward. At first, it appeared that students were delighting in being able to suggest this as a 'taboo' subject. When teachers challenged this as a topic already covered in personal, social and health education (PSHE) lessons, several students argued that this hadn't provided them with enough information. It was clear immediately from discussions that emerged on this topic that students' existing knowledge about sex was extensive. For several weeks, the engagement of students with this topic was very obvious. The teachers had set boundaries and expectations, particularly around sensitive personal issues, and students respected these. Similarly, the teachers respected students' views, took their questions and ideas on the topic seriously, and brought lots of resources into lessons. These resources were largely drawn from media culture rather than from the school's traditional sex education schemes. These included copies of tabloid newspapers, links to advice websites for teenage girls, song lyrics and mp3s of pop tunes, copies of advertisements, and clips from popular television programmes. These 'texts' were in line with

## Part two:

# 5. Engaging students' cultures

students' interests and with many of the meanings they made of sex.

For the teachers, this proved to be a very productive, if challenging, series of lessons which demonstrated the importance to children of being able to set the classroom agenda and take centre stage. This allowed them to engage in the kind of meaningful educative work all too often neglected by curricular emphasis.

**"I mean the government's getting all worried about teenage pregnancy and STDs and stuff... and then turn around and say, 'Well why isn't it happening in schools?' And it's not happening in the schools because schools have to be these prissy little places that don't actually allow the kids to explore these areas."**

Advanced skills teacher

Other teachers on the initiative found themselves less comfortable engaging with children's ideas and interests. While some children opted to explore ideas that were immediately identifiable as being appropriate to school (for example, lots of students chose to investigate scientific phenomena), in other groups they raised questions about such things as fashion that teachers were unable to identify as having potential. The challenge this work has revealed is the mismatch between what students identify as a source of fascination and what teachers can identify as an educational opportunity to expand their knowledge.

### Students

If finding ways to engage children's cultures in the classroom proved challenging at times for some of the staff, students came up with fascinating ideas for exploration, on subjects as varied as medical breakthroughs, aspects of cosmology, 'fake' hauntings, memory and the brain, climate change, the links between bullying and teenage suicide, Japanese animation, the design of football boots, and the popularity of cosmetics. What this diverse range proves is that children's interests are far from superficial. When we interviewed 32 of the students at the end of the pilot year in July 2007, many of them had clearly enjoyed exploring these ideas thoroughly, and were enthused by how much they felt they had expanded their prior knowledge.

**"It's about doing what you're interested in, researching what you want about what you like."**

Boy, Year 7

Many of the students also reported that they felt Enquiring Minds was giving them the opportunity to develop 'life-skills' that they would need either later in school or beyond in the world of work.

**"I'd say it was like stuff you've got to learn about which is going to like help you improve in what you've got to get when you're older. And it's going to help your skills in doing things that normal lessons wouldn't teach you."**

Boy, Year 8

**"It's like more to do with life and that around, like, what we actually do, and at school you're doing different topics, like geography and things like that."**

Girl, Year 8

Overall, what has been revealed by the attempt in Enquiring Minds to engage with young people's cultures is how hard it is for teachers to challenge their students to identify their interests as worthy of further attention. This relates both to what teachers view as legitimate knowledge in school, and to what students expect from school. Young people's popular knowledge, in some cases, did not seem to possess the degree of legitimacy established by the curriculum.

This is not intended as a criticism of either teachers or students. Rather, it draws attention to the complexity of attempts to make a socially and culturally meaningful and flexible learning experience in which students' experiences are given authority as a locus of classroom attention. Assuming that lending students responsibility for defining the content of lessons will be easy is, as we have seen, misguided.



## Part two:

# 6. Managing enquiry classrooms

If, as many commentators suggest, schools are to recognise and value young people's experiences in order to improve learning and enhance their curriculum experience, this has implications for classroom organisation. This is because learning is not only about the content of lessons, but is linked to teacher-student and student-student interactions- or what we call the 'social relations of the classroom'. It has been argued, for example, that structuring the learning environment more strongly leads students to expect more structure; likewise, the more control teachers exert, the more restive students become; and the more responsibility teachers take, the less responsibility students will take for their learning<sup>10</sup>.

In Enquiring Minds, we have focused on the categories of time, space and resources as three indicators of who controls the classroom, the learning that occurs within it, and the social order that is being negotiated.

Teachers and students are constantly aware of time; it is perhaps the central aspect of the work of school. It is not only that lesson length and subject timetabling determines the scope of activities or even the curricular scope of what teachers choose to introduce to students or what students learn. Time is measured by teachers as a way of maintaining momentum and to ensure that all students are proceeding at the same pace. However, the processes of schooling are not homogenous and do not necessarily all follow the same tempo. Thus, it is possible to imagine classrooms geared to the pace of individuals' learning, with different students working at different speeds depending on activity. Students may have a role in determining when tasks are finished, or how long a task needs, while other lessons may be very tightly time-defined by teachers, who have a strong idea about the pace and length of specific tasks. In Enquiring Minds, we would suggest that the management of time, like content, should be seen as flexible.

The classroom space in which teaching and learning occurs, likewise, can transmit particular messages about the types of activities and frames of social relations that are permitted within it. For example, rows of desks facing the front of the room suggest that the teacher is the main point of focus; groups of desks suggest that group work might be more common. The classroom therefore has a material impact on learning. Furthermore, it suggests

particular messages about the delivery of the curriculum and the types of knowledge in circulation. Front-facing desks suggest knowledge transmission or delivery from the teacher to the students directly, whereas group work arrangements can suggest that students are involved in the interpretation and co-construction of knowledge as learners working together.

The types of resources found in classrooms, and how they are utilised, offer important insights into how knowledge is imagined and constructed, and what counts as legitimate knowledge. At the extreme, it is possible to envisage a group of students listening to and recording the knowledge passed on to them by the teacher. In this case the curriculum is mediated solely by the teacher. In practice, it is likely that there will be a variety of resources in any lesson. Some of these may be initiated by the teacher (eg artefacts from their own experiences), some may be the mandated texts of the curriculum, and others may be students' own resources. An Enquiring Minds classroom should feature a range of different sorts of resources. It would be a strange Enquiring Minds classroom, for example, in which all students were completing the same worksheet from the same textbook.

The rest of this section reports on how teachers and students experienced the social relations of the classroom.

### Teachers

A feature of the Enquiring Minds sessions was that they involved teachers in attempts to organise classroom space, time and resources in different ways to their normal practice. An obvious example of this was that the teachers experimented with 'team-teaching', something very different from their normal work. In some classrooms, teachers experimented with removing tables in order to foster small- and large-group discussions, and in one case a teacher told the class that that he would "sit with you" much more than they would normally expect. These arrangements reinforced the idea that a different set of social relations was being established in the classroom, one which invited a sense of community belonging, in which the teacher was a relatively equal member, or 'co-learner'.

<sup>10</sup> See Watkins, C, Carnell, E, and Lodge, C (2007) *Effective Learning in Classrooms* (Paul Chapman Publishing).

## Part two:

# 6. Managing enquiry classrooms

**"We want them to be able to pursue independent enquiry in whatever subject, in whatever discipline, whether it's school or not. We want to get them excited about learning. And it's a big kind of goal."**

Science teacher

Later in the year, with students conducting their own individual or paired enquiries, it was not unusual to enter an Enquiring Minds classroom and find students distributed across the classroom: some would be using computers, others in the corner with some books, some writing, and some creating visual posters and collages with pens and scissors. This flexibility to use the appropriate resources and classroom spaces at the relevant times was intended by teachers to signify to students that they were being granted independence and responsibility for their own time-keeping and decision-making. Almost always these activities took place within broad 'ground rules' established by teachers, who also monitored their progress.

In some lessons we observed, teachers ensured that they spoke at some length with the students about their work regularly, including writing down comments and advice for improvements. For instance, we observed one teacher who had agreed deadlines for specific tasks with students and monitored students' progress toward them.

Teachers experienced the challenge of teaching Enquiring Minds as a balancing act between 'structure' and 'choice'. One teacher expressed it thus:

**"My take on Enquiring Minds is you help to figure out what their interests are through various tricks, and then they tell you... and then you have them form the question... They model the question and then you help them say 'Right OK you want to find this answer, you have to choose three types of research that you've learned all the way through the year and you have to present it in these five ways...' so the structure has to be there in terms of outcome... and how to help them form the question. That structure's there. The question is theirs."**

Design & Technology teacher

In practice, teachers managed this balancing act by introducing students to models and processes of working on their own enquiry projects, and suggesting 'routines' such as the completion of progress logs or research booklets.

The Enquiring Minds cycle provided a 'process' for students to work through, with students deciding on the question to be investigated. Once an understanding of the stages was established, the teacher's role was to motivate, clarify, and help manage students' progress through the enquiry cycle.

### Students

Some students commented in interviews at the end of the year that time in Enquiring Minds lessons had seemed to go "very fast", and certainly, in their view, faster than in some other lessons. They related this to the changed sense of responsibility in the classroom, and their opportunities to pursue things at their own pace. One boy expressed this as the chance to pace his own learning as it suited the task, so that he could slow down and concentrate on a problem or question at some times, and then speed up on other, less cognitively demanding tasks.

**"I think sometimes you just sort of think, 'Oh what am I going to do now?' but... if you actually look at the questions you can think of about a million more to ask... In some cases you just need to know what you're doing, you need to slow down sometimes, just sort of stop and think about it."**

Boy, Year 7

Another girl claimed that the Enquiring Minds classroom tended to emphasise self-motivation.

**"It's sort of like your own lesson where you like teach yourself by doing things... It's a bit like teaching yourself to like work individually."**

Girl, Year 7

Similarly, it was clear from students we interviewed that the routines and organisation of the Enquiring Minds classroom had changed the normal social order of lessons, to the point that some of them perceived teachers' roles to be under potential 'threat'.



## Part two:

### 6. Managing enquiry classrooms

**"I would find that a bit scary if I was a teacher, letting pupils like roam around. But I think we all kind of took it on board as it was our opportunity to like stand out. And you know this is our like... this is our moment or something. So if you come up with something good then maybe you can be praised... not just doing what the teacher's asked, but doing something by yourself independently."**

Boy, Year 7

It was clear in such cases that students thought teachers were taking risks with their normal practices. In one class, this led some students to suggest that they thought teachers were unable to engage fully with them, especially if they felt stuck.

**"I really liked it 'cause you get to like do something for a long time of what interests you, which is good. But in a way it's kind of messy 'cause everyone was doing something different and teachers didn't know where to go... It was kind of like the teacher in the middle and then like all the branches coming off which are pupils like, just going everywhere really... It kind of felt like the teachers didn't know what you were doing and they didn't know like what they were doing in a way."**

Girl, Year 7

This comment demonstrates the challenges for both teachers and students of working in classrooms where students are all engaged on different tasks. This girl's metaphor of a messy, 'branching' classroom indicates how the change in routines of time and space require a new 'negotiated order' to be established in classrooms.

A positive consequence, however, was that many students claimed classroom behaviour to be better in Enquiring Minds lessons than elsewhere. Arguably, we might attribute this improvement in behaviour to the loosening of normal routines around the organisation of time and space. Certainly some students argued that "not being told what you've got to do" had seemed to prove liberating for peers they usually expected to be disruptive.

**"In Enquiring Minds you've still got to listen to the teacher but they don't talk as much, they kind of let you go at your own pace, looking at the project whatever you're looking at. They give you like more space to do your own work. The lessons are quite well behaved, you don't get a lot of pupils that muck about in our lessons, I think that's 'cause you get more free space."**

Boy, Year 8

Another boy put it very simply:

**"Everyone's enjoying it. So there's not much point in misbehaving."**

Boy, Year 7

Our classroom observations seemed to demonstrate that some students needed far more structure to be provided by the teacher than others, but this could not be related in any simple way to notions of 'ability'. Indeed, teachers were divided about whether the Enquiring Minds approach was more suited to 'more able' or 'less able' students. One aspect of the changed 'social relations of the classroom' that proved especially challenging was widening the range of resources. Although several teachers made special efforts to gather together appropriate resources in response to some of their students' interests and needs, at times there was a tendency for students to spend long periods of time (often unsuccessfully) trying to locate useable resources online. While some students demonstrated competence in using web search engines, and were able, according to their interest area, to locate relevant material, others lacked these skills and found the task frustrating. This would seem to indicate that the widely held idea that young people are web 'experts' (or 'digital natives') cannot be assumed.

Finally, we should note that we observed some instances where both teachers and students sought to locate resources not only from beyond the classroom but from beyond school itself. For example, one student studying theories about the possibility of life on other planets wrote a letter to one of the UK's leading space scientists, and a week later received a package of materials from his office. In this case the student's motivation was increased and she subsequently produced a high quality piece of work.

## Part two:

# 7. Knowledge creation and learning communities

In the previous section we discussed the 'social relations of the classroom', suggesting that Enquiring Minds was based on different relations between teachers and students. One of the features of the lessons we observed was that learning still tended to be defined (both by teachers and students) as something that is 'individual'. At the heart of Enquiring Minds is the idea that knowledge is created or produced in communities<sup>11</sup>. This chapter discusses this aspect of the project's work in schools.

Enquiring Minds started from the assumption that knowledge production occurs in classrooms as learning communities. According to Chris Watkins, the hallmarks of a learning community include:

- **agency:** the belief on the part of all members that they can and do make real choices and take action, intentionally and knowingly
- **belonging:** a sense of being part of the collective and a psychological sense of membership developed in a community, linked to how far students feel respect, acceptance, inclusion and support
- **cohesion:** the way in which people move from being an I to a we
- **diversity:** in a community, differences are not a threat; the ability to embrace difference is crucial because it allows for complexity, whereby what once appeared as homogenous becomes understood as consisting of many processes and interrelations.

In a learning community, it is still possible for teachers to take up the conventional didactic position. However this is just one of a number of approaches for teachers and students to adopt. The processes involved in learning in a community include having students act together to realise agreed goals, making links or bridges with others within the community as well as with other communities, and the dialogic exchange of views and opinions.

Furthermore, in order to generate knowledge, students need to be involved in processes of enquiry, where the emphasis is on first-hand investigation, both through 'hands-on' experimentation and through use of reference material. Enquiry captures key processes such as interest and questioning, and it does so in a way that supports engagement between people. It does not invoke right answers or authority-based solutions; instead it invites

communication and accepts diversity. Its goal is enhanced understanding and the generation of knowledge derived from the activity of all members of the classroom community. So knowledge is not 'in the head' but in what people create when they put their heads together, not in books and sources but in what people create when they go to books and other sources.

Finally, truly effective learning communities should be reflective, with all members able to identify the processes and experiences through which they have been able to generate knowledge, such that these processes (and their outcomes) can be modified and improved in the future. This sort of reflection is often referred to as 'meta-learning', the understanding of one's own learning, and is notorious for its absence in the research literature. It should be clear that Enquiring Minds is attempting to develop learning communities, where knowledge creation and generation takes place, in practice at the two partner schools.

## Teachers

In line with these ideas, all the teachers involved in the project sought to ensure that students felt able to share ideas and interests in the classroom and then to expand on these in meaningful and challenging ways.

At one of the participating schools teachers expressed their view that some of their students had very little experience in their social lives of feeling self-motivated and encouraged to engage in learning of any sort. This recognises the difficult social, cultural and economic conditions of young people's lives and how this affects their experience in school.

**"I know the types of kids we have here who do not have a background where they are stimulated and encouraged to find out for themselves and do those sorts of things, where we have a harder job, a bigger job to do. But potentially the rewards are greater as well."**

Assistant headteacher

This teacher acknowledges that for students to be involved in a learning community is a desirable outcome to aim for in the classroom.

<sup>11</sup> Our conception of learning community and knowledge generation derives from Watkins, C (2005) *Classrooms as Learning Communities* (Routledge).

## Part two:

# 7. Knowledge creation and learning communities

A feature of all the classrooms we observed was that teachers had established a warm and welcoming 'classroom climate'. Teachers reported that they felt it was possible, and certainly desirable, to get to know students better in order to support them more effectively, and the only way of ensuring this was to make students feel as though they were all equal members of the class. In practical terms, this meant that teachers negotiated with their students questions of power and authority. Learning communities which foster the idea of knowledge creation rather than content-delivery depend on new sorts of relationships between teachers and learners. This does not mean that teachers give up all responsibility, but that students are permitted more 'agency' to make significant choices about the processes of their learning. Observations of the Enquiring Minds classrooms over the course of the year suggest that developing these types of relationships takes time.

**"I think the students want longer blocks of time to work on things, and I think we want that time to get to know them so that at least one individual knows them a bit better than they do at the moment. I think it's more like real life where you know ideally you could choose to have a big chunk of time at something."**

Assistant headteacher

Undoubtedly, the development of constructive and respectful relationships, twinned with the permission students felt to do things in the classroom that were personally meaningful, contributed to an atmosphere of engagement and motivation. This did not apply to all teachers all of the time: some teachers were less convinced by the argument that students might have choice about their learning. Other teachers experienced success in this area. One participating maths teacher, for example, claimed that he felt as if he knew his Enquiring Minds students differently to others, seeing them in a context where he wasn't concerned with their mathematical ability.

Overall, there were few examples during the year of Enquiring Minds classrooms operating as learning communities in the sense that all students were working together to generate communal knowledge. This is perhaps unsurprising at this early stage of the project, when the main emphasis has been on encouraging and supporting students to develop and practice their individual enquiry skills.

## Students

During the course of the year, students came to understand that part of the purpose of Enquiring Minds was to enable them to make sense of knowledge rather than merely to receive it. Several students saw their role as to pose questions rather than acquire knowledge passed on to them by teachers.

**"Like in school there's just like, you know, there's the question, there's the answer, but in Enquiring Minds it's like, there's the answer but there's more to it."**

Girl, Year 8

**"I think we learned how to look at the topics in the world around us in a different way, not just the way it's given to us."**

Girl, Year 8

These statements suggest that students are beginning to examine knowledge critically. One example of how a teacher supported students to become more critical was with two who were exploring the origins of ghost stories. The students had located a series of images from books and the internet that purportedly proved the existence of ghosts. The teacher arranged for the students to spend a lesson with a photography teacher at the school, who taught them the skills of digital image manipulation and other forms of photographic trickery. The students then created their own image of their Enquiring Minds teacher as an ethereal spectre floating along a corridor in the school. This episode helped to reinforce not only the idea that images can be 'faked', but that knowledge itself can be made up rather than derived from fact, and additionally it expanded the boundaries of the classroom into activities and areas of interest that the students had not anticipated.

Many of those we interviewed, however, were unambiguous about the sort of work they had mainly been carrying out: it was individualised. This meant, for some, that they felt personal ownership and responsibility over their activities and thus a heightened sense of individual achievement.

## Part two:

# 7. Knowledge creation and learning communities

**"I think it's a brilliant idea. Because like in every other lesson we've never done anything like this before. I mean it's just good to be like on your own when you're doing stuff and not get told what to do. I kind of work harder, you know, it's your project that you have, it's sort of like you have to finish it because it's yours."**

Boy, Year 8

This view was reflected in other students' claims about having control over the learning process. While it was certainly the case with some students in some classes that teachers had instructed them to carry out their own individual enquiries, it seemed clear that many of the students we observed felt positively about working alone instead of collaboratively. This does not mean that Enquiring Minds lessons were conducted in silence. Enquiring Minds lessons were generally characterised by conversation; some of it, as in most classrooms, of a social nature. Several students also reported that while friendly conversation had been tolerated to a certain extent by some teachers, there had also been a lot of chat around each others' topics.

**"They [other students] chat to their neighbours, but it's all about the work and like all the stuff that they're doing... That helps a bit because you have what they're doing might influence what you're doing. If they're doing something sort of different to what you're doing or fairly similar, you could think, 'Ooh that might be good. I could get something like that.'"**

Boy, Year 7

In some cases, students told us that they had felt more able in Enquiring Minds lessons to ask their peers and friends for help than they might have in others. This is an encouraging sign that the necessary sorts of relationships and classroom routines had been developed that might allow more community learning and knowledge generation to take place in the future. As one Year 7 girl pointed out to us, the teachers were much more involved in each student's activities than most other teachers seemed to be in subject lessons.

**"In Enquiring Minds they [teachers] sort of have to talk about it to you a lot so you've got the idea... In a different lesson they wouldn't spend as much time explaining it to you, 'cause it's more easier. But in Enquiring Minds it's quite a hard topic... Like the teachers don't just stand and watch you, they sort of go round helping people."**

Girl, Year 7

## Part two:

# 8. Assessment

Different forms of classroom and curriculum organisation suggest the need for different forms of assessment. Increasingly, educators, policy makers and employers call for new forms of assessment which recognise students' ability to be flexible in learning new things, to be able to solve problems for themselves and with others, and to be resilient, resourceful and systematic. In general, the trend is towards assessing children's skills and competencies to deal with problems rather than assessing their ability to memorise content.

Accordingly, 'formative assessment' is suggested as the most effective way of measuring children's abilities and of identifying their needs as learners. It has been suggested that formative assessment done well is 'assessment **for** learning,' that is, when information about learning is **evoked** and then **used** to modify the teaching and learning activities in which teachers and students are engaged<sup>12</sup>. Formative assessment, when engineered 'for learning', then, must include clear statements for students regarding the achievements they have made, as well as what they need to do next. The crucial elements of formative assessment include making explicit to students what they are learning, how well they have progressed with it, what next steps they need to take to advance their understanding, and providing guidance about how to improve.

There are practical issues in the development of 'formative assessment'. Compared with summative assessment, which provides specific test data on students that can be collated, formative assessment cannot easily be seen to have currency beyond the individual student or small group. Similarly, it can be a very time-consuming process, in that it usually requires much more detailed responses than a simple statistical mark or grade. Also, most students are accustomed to receiving scores and grades, and might therefore find alternative responses to their work strange. Most notably, of course, formative assessment simply doesn't become formative until students act on it, and in the hustle of busy schools there may be little time to ensure this always occurs.

This form of assessment makes the teacher's role in Enquiring Minds particularly important. In classrooms where students are involved in many different sorts of

activities, teachers will need to develop clear rubric alongside them on what constitutes progress and improvement. Some of this will relate to specific sorts of skills, such as gathering and managing information. If we are serious about learning as a process that takes place in a community, then there also needs to be recognition of students' contributions to the communal generation of knowledge, as well as ways of assessing that knowledge.

### Teachers

Devising and implementing appropriate forms of assessment in the Enquiring Minds classroom was challenging for teachers. Some thought that students would need to be offered definite certification at the end of the year to demonstrate what they had accomplished. One teacher, for example, ensured that he presented all students with a short report recording their achievements, which he presented to them individually in the classroom while talking to them about their work. These short reports included a brief written statement about students' progress, as well as a grade for effort, progress made and meeting deadlines. The teacher's rationale for doing this was that students need some kind of concrete grade in order to allow them to 'measure' their sense of achievement, although when talking to students he did reinforce to them that Enquiring Minds was not really a subject in which grades were of utmost importance. This teacher also provided students with regular feedback, both as written comments on work produced and vocally during lessons.

However, when another teacher marked students' work at the end of a term's worth of activity, we observed that some of the factual errors that students had included had gone unnoticed. A possible explanation is that the teacher had no subject expertise in the area the students were investigating. Another is that the teacher was less interested in the content of the students' enquiry, and more in the process the student had reported. One possible way around this kind of problem is for teachers from a range of subject areas to take responsibility for assessment depending on the area of the student's enquiry. With a large enough team of teachers responsible for a programme, it certainly would not be impossible to share out students' work.

<sup>12</sup> See Black, P, Harrison, C, Lee, C, Marshall, B and Wiliam, D (2003) *Assessment for Learning: Putting it into Practice* (Open University Press).

## Part two:

# 8. Assessment

### Students

Students on the Enquiring Minds initiative seemed to welcome the fact that there was much less emphasis on the pressure to score grades. Although they all generally thought that it was important to receive grades as a way of understanding the patterns of their own progress, many thought that grading sometimes put them under undue pressure. They seemed to prefer the way that teachers on the project had tended to appraise each student's progress through frequent, ongoing dialogue rather than retrospective written 'marks'.

**"I think it's why it's relaxed because we... we get graded a lot and that's good, but still - they tell you if your work's good or if it's... how you can improve."**

Girl, Year 8

For some, there was a sense that teachers were engaging with their work in such a way that the teacher was learning from the students' work.

**"[The teacher] sort of marks us as we go along, so he's sort of memorising what we're doing. It's like, while we're doing the work he might look at it and say 'oh I like that', just sort of goes straight to his brain and sort of remembers how well we're doing."**

Boy, Year 8

Although this is encouraging, our observation that teachers did not always pay close attention to the content of students' enquiries was shared by some students who expressed their hope that teachers would engage with their work more fully. Students responded positively to teachers' frequent vocal encouragement. We think that the challenge is to find ways to ensure that teachers can respond critically and constructively to children's work and to ensure that students are able to scrutinise the knowledge they are examining for its veracity.

Indeed, some students explained that marking could sometimes lead to frustration, particularly if it provided little or no concrete advice for further improvement.

**"When you've got all your work, you've just got strings of ticks and everything over it, it's annoying."**

Boy, Year 8

Another theme that emerged in the interviews with students is the sense that marking was not in fact that important, and rather that a sense of personal achievement was more valuable.

**"I think it doesn't really matter in Enquiring Minds because it's your thing and it's either you think you've done good or not. If you've done well, if you think you've done well then personally you've done well."**

Boy, Year 8

This section has highlighted some of the issues that have arisen around assessment in the course of the Enquiring Minds project to date. In a sense, we think that the teachers' attempts to grapple with these issues reflect the process of curriculum innovation and development. Understanding the nature of the innovation and the new types of classroom relations involved is the first step. The question of how, what (and whether) to assess is the next stage.



## Part two:

# 9. Teacher and learner identities

Enquiring Minds is a project concerned with changes in the nature of teaching and learning. It is based on the idea that what it means to be a teacher and student may be very different, since it requires different ways of approaching questions of knowledge, classroom relations, teaching and learning and assessment. This section provides a brief discussion of how teachers and students have responded to these changed roles.

Critics argue that a great deal of educational reform and innovation in the past has tended to ignore teachers' day-to-day needs, thinking, belief systems and habitual ways of acting and interacting in the classroom, with the consequence that teachers simply feel beleaguered by waves of change. They do not feel that their professional identities fit with the programmes of work being demanded of them<sup>13</sup>.

In simple terms, it might be argued that there are different forms of professional identity available to teachers. One, which might be called the 'entrepreneurial' identity, is equated with efficiency, accountability, performance indicators, and is usually led by externally-defined standards. Another, which might be called the 'democratic' identity, emphasises providing for students democratic learning experiences and tends to stress collaborative, enquiry-oriented learning related to broad societal values and ideals<sup>14</sup>. This ideal suggests that teachers have an existing commitment to the idea of learning as taking place in a community where power relations are more negotiated than imposed and teaching is geared to students' diverse contemporary needs.

This second, democratic identity, describes the sort of teacher identity we might anticipate is important in Enquiring Minds - both in order to welcome the project and in order to develop it. Of course, no identity is fixed and static, and at least part of the project's objective

is to allow teachers to reflect on and review their professional identities.

Similarly, students' identities are not immutable. They change over time and according to a huge range of social and cultural factors<sup>15</sup>. For one example, it is regularly claimed that the development of social networking websites has allowed young people to extend their identities on the internet<sup>16</sup>. Similarly, the identity that a child carries with her outside school may be distinguishably different from the one she carries with her once she enters the school gates.

The Enquiring Minds programme of work is attempting to bridge the gap between these identities and to find ways of bringing young people's social and cultural identities into the classroom space. Schools, as critics have pointed out, are adult-controlled spaces that offer limited opportunities for personal choice or agency<sup>17</sup>. As a consequence, young people's identities are patterned by school, whereas at home or out with friends they are more active and have space to develop identities, within their families and social groups. Life at school is, quite simply, not easily negotiable. The result is that students' identities harden, sometimes into positions of resistance, other times into acquiescence and compliance.

## Teachers

The teachers involved in the project felt that their participation had included a steep learning curve, one that had meant thinking hard about the kinds of challenges they faced in their everyday practice and even more particularly what sorts of challenges the students at their schools faced when they entered through the gates each morning. This meant that they often felt as though their professional identities were at risk.

<sup>13</sup> See Day, C (2004) *A Passion for Teaching* (RoutledgeFalmer).

<sup>14</sup> Different metaphors are often used to describe this sort of teaching. See Sachs, J (2003) *The Activist Teaching Profession* (Open University Press).

<sup>15</sup> See Prout, A (2004) *The Future of Childhood* (RoutledgeFalmer).

<sup>16</sup> For a critical account of such claims, see Buckingham, D (2007) *Beyond Technology: Children's Learning in the Age of Digital Culture* (Polity Press).

<sup>17</sup> See Salmon, P (1998) *Life at School: Education and Psychology* (Constable).

## Part two:

### 9. Teacher and learner identities

"The last couple of weeks I've been experimenting more with group work - and it's incredibly noisy, and I find it incredibly stressful, because it's the complete opposite of what a good classroom is supposed to be, like if you're being checked out - are people on task? Stuff like that... a lot of the time I do think I'm getting more active learning going on, but it's very hard to measure too - but the recording of it, the evidence is really difficult. And one of the things we're looking at next week when we're being Ofsteded is 'do we have any evidence'?"

Design & Technology teacher

While Enquiring Minds certainly was risky for these staff, most of them also appreciated that it was allowing them to develop new professional identities that extended beyond their comfort in their subject expertise too.

"I mean aside from the actual Enquiring Minds teaching, which I think has gone very well... it's made me reflect a lot about the way I teach. So allowing students a lot more freedom within a lesson, within a structure in order for them to gain ownership over what they're doing... so in some ways I guess it's just changed my mentality and my approach to normal teaching."

Science teacher

Similarly, it was clear that they believed the process of change, while worthwhile, was a struggle that required staff to be able to unfreeze a lot of their existing beliefs about classrooms and children and to be prepared to take risks on the way to solidifying new practices and beliefs.

"I suppose from the start what you're trying to do is that it's driven by them, you know... That's not an easy thing to do as a teacher, don't get me wrong, because quite often the directions that they take, you know, lead you to dead ends and are unsuccessful. And I think that's the risk and that what makes it a little bit scary I suppose."

Maths teacher

Yet for all the reservations and difficulties that teachers experienced along the way, this, some felt, was the only way to ensure that the initiative worked for the school and the students being served by it.

"We've had to make a lot of mistakes to get it to this stage, it's a bit bruised and battered... but I think we could do that again with another year group and then be in a position to say, 'look, we've got a model that certainly works for this school at this time.'"

Advanced skills teacher

One of the participating senior staff on the project claimed that the only way to develop an initiative like Enquiring Minds was to work within a team of staff all committed to its rationale and all also equally committed to the idea that their own professional identities might need to become more flexible than relying on their usual subject expertise. He also pointed out that different ways of measuring teachers' performance would be required.

"You need to have people with open minds. I mean basically you need people who are open and not opinionated and you know, 'my way is the only way', I mean it has... people who can work together and be supportive of each other."

Assistant headteacher

"I think you've got to start with a small group of people who are going to be really committed to doing it and can see the value in doing it. I think getting a good... a team of people from across different subjects like we've had works really well. I think you've got to give them some sort of practical framework that has worked in a school for them to do whatever they want to do with that."

Assistant headteacher

#### Students

One of the main intentions of Enquiring Minds has been to develop students' identities in such a way that the division between school identity and other identities has been blurred a little. An indication that the project had allowed students to adopt their social identities with their school identities was provided by one boy's claims that what he was doing in Enquiring Minds was more like something he would have done out of school.



## Part two:

### 9. Teacher and learner identities

**"It's like something which I would usually do maybe outside of school. I look forward to it because each individual person gets to study what they want to study. I want to study this, so I do look forward to it."**

Boy, Year 8

One boy on the project stated that he felt the change in social relationships in the classroom had led to more fundamental changes amongst all participants. When asked in interview if he felt that teachers were different in Enquiring Minds than in other lessons, he responded, "I suppose they have to be, don't they?"

**"Because they [teachers] don't tell you what to do, they have to change as well as us. It's sort of a change for both teacher and kids I think... They have to be more open."**

Boy, Year 7

What this boy seems to be suggesting is that by placing more decision-making authority in students' hands, teachers have had to change their own practices, and thus their identities as classroom subject experts.

A girl in one of the Year 7 classes expressed to us best how Enquiring Minds was helping to shape her identity as a self-motivated learner.

**"Sometimes it was fun and sometimes it was quite frustrating and that, because yourself you just wouldn't get anywhere sometimes in lessons. But then other lessons you'd get really far on your own and feel like really proud of yourself."**

Girl, Year 7

It is of course very difficult to say whether students' learning identities were in any way shaped by the experience of attending Enquiring Minds lessons, other than by highlighting the way they characterised the sessions. The interview data above seem to indicate that for the students we interviewed there was a general sense that Enquiring Minds was offering them opportunities for learning that seemed entirely unique in their overall experience of school: they felt motivated, engaged, sometimes frustrated, and often proud of their

achievements, particularly because they were being offered the opportunity to explore things that were of personal interest rather than prescribed from subject discourses.

## Part two:

# 10. Survey findings

As part of a range of data collection methods, we developed questionnaires to provide us with baseline data on students' sense of engagement and motivation that can be used as the basis for further exploration via other methods.

Questionnaires were completed in September 2006 and again in July 2007. These surveys provided us with baseline descriptive and attitudinal data about students' experiences of school, their engagement, attitudes and learning preferences. The first questionnaire was administered to all participating students and to all other students in the same year groups. At the post-intervention stage, participating students completed an Enquiring Minds-specific post-intervention questionnaire, and the entire year groups completed another questionnaire identical to the first. These data allowed us to gauge overall trends in students' engagement at the two schools and to compare these to responses gathered from the participating Enquiring Minds students.

As we are sure readers will appreciate, this sort of data can be sensitive. As a result, we have averaged the results across the two schools, rather than providing specific data on each.

Headline findings from the surveys revealed that:

- averaged across both schools, 54% of students in July 2007 claimed that they are highly interested in Enquiring Minds lessons
- students rated their interest in Enquiring Minds more highly than their general level of interest in school
- students marked Enquiring Minds notably higher than the rest of their experience of school when it came to being encouraged to sharing their point of view, making their voices heard, and having a choice about what to do in lessons
- students were more likely to state that Enquiring Minds was about things that were important in their lives than other lessons
- students felt more actively involved in their learning in Enquiring Minds rather than following teachers' instructions.

Table 1 below summarises a selection of responses from the participants.

	High %	Mid %	Low %
<b>I am interested in my lessons</b>			
Enquiring Minds	54	36	5
School overall	31	63	6
<b>Everyone has the chance to say what they think</b>			
Enquiring Minds	87	13	-
School overall	53	36	11
<b>Lessons are about things that are important in my life</b>			
Enquiring Minds	40	46	14
School overall	25	38	37
<b>Learning happens by doing and not listening</b>			
Enquiring Minds	57	36	7
School overall	44	41	15
<b>Note:</b> Students were asked to mark a 9-point scale, where 1=Agree strongly and 9=Disagree strongly. At this stage of the analysis, we have clustered responses into three ranges, with marks from 1-3 listed as High or Strong responses, 4-6 as Middle responses, and 7-9 listed as Low or Weak responses.			

TABLE 1: ENGAGEMENT IN ENQUIRING MINDS

## Part three:

# 11. Discussion: issues and challenges

In this report we have described how students and teachers have responded to the Enquiring Minds project. More specifically, it has addressed questions about the curriculum and the control of the learning experience; the organisation of the classroom and the relationships within it; ideas about learning communities and knowledge generation; the possibility of engaging young people's cultures as resources upon which meaningful learning can be built; assessment; and about the kinds of identities which teachers and students possess in school. In this discussion, we want to raise a series of issues and questions that have emerged from our research in these areas.

One of the key questions we have been exploring is **'How can schools engage with young people's cultures?'** As we have shown, the teachers participating in Enquiring Minds have discovered that this is far from straightforward. The aim of addressing this question in the classroom should be to elicit from students their range of cultural experiences (in the broadest sense), and then work on their existing knowledge as an artefact or product of particular processes or factors in their lives. The purpose of eliciting children's existing knowledge, from whatever source in their lives outside of school, is to permit them to see their own experiences as having validity within the school environment and within its frameworks of knowledge. The popular and the curricular should not be regarded as strongly insulated one from the other.

We have identified that the question of **'How can schools change the curriculum?'** is necessarily underpinned by debates about the construction of the curriculum and by views on the future of society for which schools are supposed to prepare children. On a practical level, Enquiring Minds has sought to suggest that schools need to attend to children's needs and interests in the present, not only in the future, and has been presented to students as a stand-alone aspect of the timetable. While this is completely understandable, and perhaps desirable at this early stage, we would suggest that this arrangement has insulated Enquiring Minds from the possibility of engaging with other, more overtly curricular perspectives on the knowledge that children have been bringing into the classroom. One of the chief aims of initiatives such as Enquiring Minds should be to create the conditions in which disciplines become resources to support students' enquiries and analyses. In this way, specialised knowledge

comes under the duty of everyday or popular knowledge, rather than popular knowledge being subordinated to the legitimacy of curricular knowledge and its associated pedagogies.

**'How can teachers be supported to change their practices in the current climate of performance indicators and standards?'** Teachers work in an atmosphere of standards where schools are seen as motivated by effectiveness and efficiency. Our work on Enquiring Minds is intended to counter the prevalence of the standards view of teaching and learning, particularly where used as a regulatory approach to the measurement of teachers' and schools' performance. We have seen how the teachers working on Enquiring Minds have, to differing extents, changed their practices. This has often meant being more reactive to students' individual needs and relaxing the usual boundaries of authority when it comes to selecting and deciding on activities, tasks and content.

On the question of **'How can schools promote communality over individualisation?'**, Enquiring Minds has demonstrated that students are accustomed to, and comfortable with, the completion of school tasks on their own. Many students reported that they liked the opportunity to demonstrate their own personal capacity to complete their enquiry projects. It made them feel proud of their individual achievements. While this is positive in itself, we would argue that students and teachers should also be able to see themselves as engaged in communal tasks, where they are jointly contributing to the overall knowledge base of the class as a community of learners. In building knowledge with others rather than in isolation, students should be more able to identify complexity and diversity. In addition, generating knowledge alongside others requires students to recognise **how** they can learn in a community. Many school strategies for strengthening students' self-awareness about themselves as learners tend to neglect the social aspects of learning, instead focusing on individual dispositions and, for example, learning styles. This is about more than group work. It requires students to feel part of an endeavour which they recognise as part of the effort to heighten the knowledge of the class as a whole.

## Part three:

# 12. Conclusions: lessons learned

We have learned a great deal from the classroom work of teachers and students and, from our research, about the process of change in schools and about re-thinking the educational experience to provide young people with more choice, agency and responsibility in their learning. In this final section we offer a series of 'lessons learned' to inform both the ongoing development of Enquiring Minds and, we hope, other school leaders and teachers who believe, like we do, that this sort of approach is important to address the challenges of schooling for the future.

The pilot year of activities on Enquiring Minds took place with students from Key Stage 3, aged 11-13 years. However, the approaches that have been devised and tried out by the participants could be modified for older or younger age groups. We see no reason why teaching and learning approaches based on Enquiring Minds could not form the basis for a more open and flexible sort of GCSE assignment or for Key Stage 2 work.

The process of change in schools is slow. We were involved in discussions with teachers for a year before Enquiring Minds became a timetabled reality in the two participating schools. Once the series of Enquiring Minds sessions began it often took some time for the students and teachers to settle into new patterns of practice. This meant that some teachers felt uncomfortable about their Enquiring Minds teaching, lacking confidence that it was leading to productive outcomes. It is essential that if schools are serious about making changes that senior leaders sanction staff taking risks and provide frequent support for them.

Students value choice about their learning but they also require significant support from teachers. Some students have found themselves frustrated while carrying out their own projects, and while in some cases individual perseverance and resilience allowed them to overcome this frustration, other students needed regular teacher intervention to help them proceed. This included teachers asking constructive questions and advising students on possible resources to consult. The completion of progress logs or booklets was essential to allow students to keep a record of their work and achievements.

It is challenging for teachers to engage with young people's cultures and lives, their interests and concerns, without frameworks which allow both parties to identify why ideas are important and worth pursuing. Some children's interests simply appear superficial, depthless

and offering no opportunities for intellectual advancement. While it may well be the case that some students find themselves in dead-ends of enquiry at times, this needs to become the focus of evaluation so that students know how to go about things better on subsequent occasions. It may also require teachers to do a little bit of research themselves, in order to identify some points of interest and possibility in children's ideas.

Our research has indicated that some children usually considered lower ability than others have often thrived during Enquiring Minds lessons. Some children considered higher ability have often needed a great deal of teacher support. What this shows is that with careful teacher intervention children of all ability ranges can become able to carry out their own enquiry projects; the project is not just an intervention for gifted and talented students. Some children also attribute improved behaviour amongst some peers during Enquiring Minds to the opportunities they have had to do something in school that really interests them.

Assessment remains a core component of initiatives such as Enquiring Minds. Rather than individual exams or tests, assessment needs to take the form of regular written feedback and dialogue between staff and students. It is also important to reinforce to students that achievements on such schemes depend on different sorts of metrics, for example, on the ability to meet deadlines and to work constructively with others. Furthermore, a crucial aspect of assessment is enabling students to become self-evaluative about their learning, to recognise their responsibilities and achievements and to be able to identify, with teachers' support, ways of improving.

Finally, schools are places where teachers and children are involved in relationship-building and in the maintenance of their personal, professional and learning identities. Teachers' and students' belief systems about education, learning and schools do not change quickly. When risks are being encouraged in schools, as we have seen in Enquiring Minds, the experience of all involved can be discomfiting and demanding. Beliefs are sticky, and to unstick them requires a great deal of patience and perseverance.



This publication is available to download from the Enquiring Minds website –  
[www.enquiringminds.org.uk/our\\_research/reports\\_and\\_papers](http://www.enquiringminds.org.uk/our_research/reports_and_papers)

### **About Futurelab**

Futurelab is passionate about transforming the way people learn. Tapping into the huge potential offered by digital and other technologies, we are developing innovative learning resources and practices that support new approaches to education for the 21st century.

Working in partnership with industry, policy and practice, Futurelab:

- incubates new ideas, taking them from the lab to the classroom
- offers hard evidence and practical advice to support the design and use of innovative learning tools
- communicates the latest thinking and practice in educational ICT
- provides the space for experimentation and the exchange of ideas between the creative, technology and education sectors.

A not-for-profit organisation, Futurelab is committed to sharing the lessons learnt from our research and development in order to inform positive change to educational policy and practice.

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Through its Partners in Learning initiative, Microsoft is helping to empower students and teachers to realise their full potential. By broadening access to a spectrum of education and ICT resources – tools, programs, and practices – this initiative is looking to skill and inspire students and teachers to use technology in creative and innovative ways.

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**[www.microsoft.com/uk/partnersinlearning](http://www.microsoft.com/uk/partnersinlearning)**

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